

# CARBOHYDRATES

Carbohydrates — fibre, starches and sugars — are essential food nutrients. Your body turns carbs into glucose (blood sugar) to give you the energy you need to function. Complex carbs in fruits, vegetables and whole-grain foods are less likely to spike blood sugar than simple carbs (sugars).



Dietary carbohydrates have three main categories:

- **Sugars:** These are sweet, short-chain carbohydrates found in foods. Examples are glucose, fructose, galactose, and sucrose.
- **Starches:** These are long chains of glucose molecules, which eventually get broken down into glucose in the digestive system.
- **Fibre:** Humans cannot digest fibre, but the bacteria in the digestive system can make use of some types. Plus, eating fiber is vital to your overall health.

## So What Do Carbohydrates Do?

Carbs are your body's main source of fuel. They give you the energy you need to function. Here's how the process works:

- When you eat carbs, your digestive system begins to break them down.
- Your bloodstream absorbs the carbs (now called glucose or blood sugar).
- Your body releases insulin, which directs the glucose to your cells for energy.

If you have extra glucose, your body will store it in your muscles or liver. Once you max out glucose storage in those places, your body converts extra glucose to fat.

The amount of carbs you consume affects your blood sugar. Taking in a lot of carbs can raise blood sugar levels. High blood sugar (hyperglycaemia) can put you at risk for diabetes. Some people who don't consume enough carbs have low blood sugar (hypoglycaemia).

Fibre is an exception. It doesn't provide energy directly, but it does feed the friendly bacteria in the digestive system. These bacteria can use the fibre to produce fatty acids that some of our cells can use as energy.

## "Whole" Vs. "Refined" Carbs.

Though there is a lot of information floating around about carbs, keep in mind that not all carbs are created equal.

Carbs are sometimes referred to as "simple" versus "complex" or "whole" versus "refined."

Whole carbs are minimally processed and contain the fibre found naturally in the food, while refined carbs have been processed more and have had the natural fibre removed or changed.

Numerous studies show that refined carbohydrate consumption is associated with health conditions like obesity and type 2 diabetes.

They're usually also lacking in many essential nutrients. In other words, they're "empty" calories.

Things are rarely ever black and white in nutrition. But the following foods are a better source of carbs.

- **Vegetables:** All of them. It's best to eat a variety of vegetables every day.
- **Whole fruits:** Apples, bananas, strawberries, etc.
- **Legumes:** Lentils, kidney beans, peas, etc.
- **Nuts:** Almonds, walnuts, hazelnuts, macadamia nuts, peanuts, etc.
- **Seeds:** Chia seeds and pumpkin seeds.
- **Whole grains:** Choose grains that are truly whole, as in pure oats, quinoa, brown rice, etc.
- **Tubers:** Potatoes, sweet potatoes, etc.

These foods may be acceptable in moderation for some people, but many will do best by limiting them as much as possible.

- **Sugary drinks:** These are sodas, fruit juices with added sugar, and beverages sweetened with high fructose corn syrup.
- **White bread:** These are refined carbohydrates that are low in essential nutrients and have a negative effect on metabolic health. This applies to most commercially available breads.
- **Pastries, cookies and cakes:** These foods tend to be very high in sugar and refined wheat.
- **Ice cream:** Most types of ice cream are very high in sugar, although there are exceptions.
- **Sweets and chocolates:** If you're going to eat chocolate, choose quality dark chocolate.
- **French fries and potato chips:** Whole potatoes are healthy. However, french fries and potato chips don't provide the nutritional benefits that whole potatoes do.

### What Is The Glycaemic Index?

The glycaemic index (GI) is a value used to measure how much specific foods increase blood sugar levels.

Foods are classified as low, medium, or high glycaemic foods and ranked on a scale of 0–100.

The lower the GI of a specific food, the less it may affect your blood sugar levels (1Trusted Source).

Here are the three GI ratings:

- Low: 55 or less
- Medium: 56–69
- High: 70 or above

Foods high in refined carbs and sugar are digested more quickly and often have a high GI, while foods high in protein, fat, or fibre typically have a low GI. Foods that contain no carbs are not assigned a GI and include meat, fish, poultry, nuts, seeds, herbs, spices, and oils.

Other factors that affect the GI of a food include the ripeness, cooking method, type of sugar it contains, and amount of processing it has undergone.

Keep in mind that the glycemic index is different from the glycemic load (GL).

Unlike the GI, which doesn't take into account the amount of food eaten, the GL factors in the number of carbs in a serving of a food to determine how it may affect blood sugar levels.

For this reason, it's important to take both the glycemic index and glycemic load into consideration when selecting foods to help support healthy blood sugar levels

# GOOD carbs

Clean Food®  
CRUSH

V  
S

# BAD carbs



**'Simple Carbs'**  
convert to sugar much faster in the body, can spike blood sugar.



**'Processed Carbs'**  
convert to sugar quickly, can spike blood sugar, and are often stripped/devoid of any nutritional value.



**'Complex carbs'**  
break down more slowly, allowing a more gradual release of energy. Contain fiber and other important vitamins, minerals and phytonutrients.

## The Role Healthy Carbs Play in Weight Loss:



Provide sustainable energy



Support weight loss



Regulate hormones



Support better nights sleep

## CARBS TO AVOID OR MODERATE:



White bread/  
Pasta



Potato  
Chips



Pasteurized  
Fruit Juices



Cereal



Ice  
Cream



Refined  
Sugar



Candy



Donuts/  
Baked Goods

## CARBS TO ENJOY:



Non-starchy  
vegetables



Fruits



Beets



Sweet  
Potatoes



Pumpkin/  
Squash



Oats



Brown Rice



Quinoa



Beans and Lentils

## Our Tips For Eating The Right Carbohydrates When Exercising

Choose those that release their energy slowly, such as:

- Wholegrain breads, rice and pasta
- Cereals
- Sweet potatoes
- Pulses (like beans, peas and lentils)
- Fruit and veg.

Look at your bread, pasta, and grain selections and see if you can swap white refined versions for wholegrain ones. An easy way to start is to try wholegrain breakfast cereal and wholegrain bread. These contain more fibre than the white alternatives and provide you with a steady stream of energy throughout the day.

As a guide, half of your plate should be carbohydrate foods. The rest should be protein, vegetables, or salad.